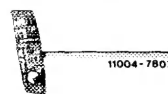


Test and adjustment values

| Engine | 110 | 117 |
|--|--------|--------|
| Regulated on-off ratio with tester, range | 40—60% | 40—60% |
| Adjustment value of on-off ratio with tester | 50±10% | 50±10% |
| Idle speed, 1/min | 750±50 | 650±50 |

Special tools

3 mm Allen wrench for adjusting on-off ratio



900 589 00 21 00

Remote oil temperature gauge



116 589 27 21 00

Test plug for on-off ratio
(measurement with Voltmeter)

Conventional tools

Voltsmeter, tachometer

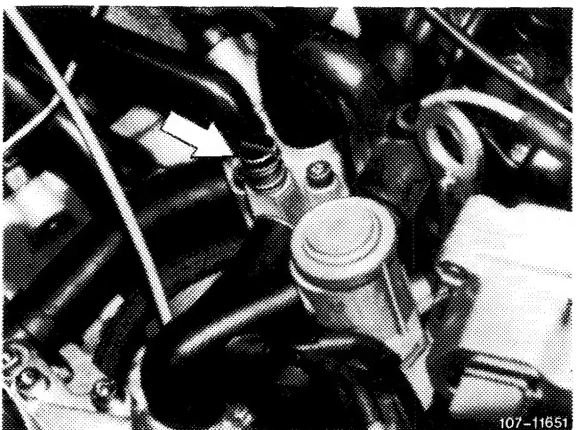
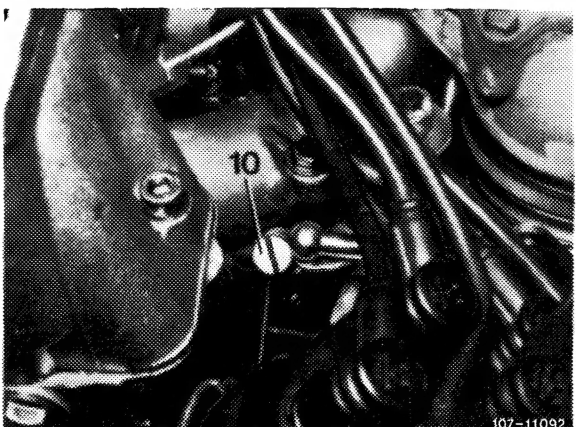
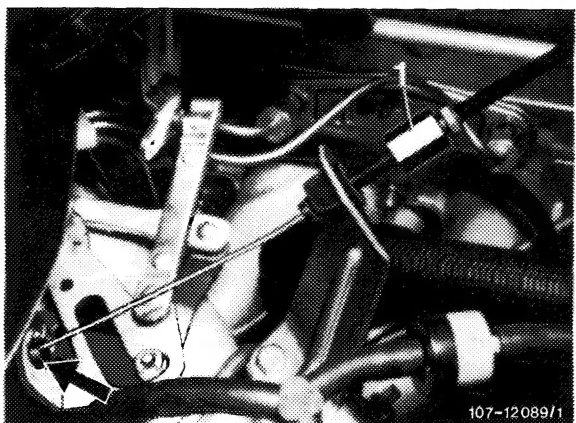
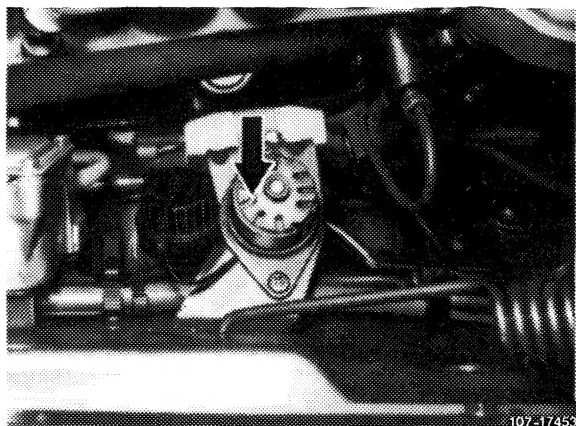
LAMBDA control tester

KDEJ — P 600

Checking and/or adjusting

- Connect tachometer and remote oil temperature gauge.
- Turn off automatic climate control and place shift selector lever in position "P".

Engines 110 117



- Connect test instrument

When testing with voltmeter, insert test plug into diagnostic plug. Connect black lead of voltmeter to test plug (arrow) and red lead to battery plus.

Note: If test plug is not available, connect black lead to pin no. 3 of diagnostic plug.

- Check if throttle valve lever rests against idle stop.
- Check if Bowden cable rests tension-free against throttle lever. If necessary, adjust with adjusting screw (1).

Engine 110

- Run engine until approx. 80 °C (176 °F) oil temperature is reached.
- Run engine at idle. Turn off all electrical consumers.
- Check idle speed. If necessary adjust to specified value with idle air adjustment screw (10 or arrow).

Engine 110

Engine 117

Check and adjust on-off ratio with tester

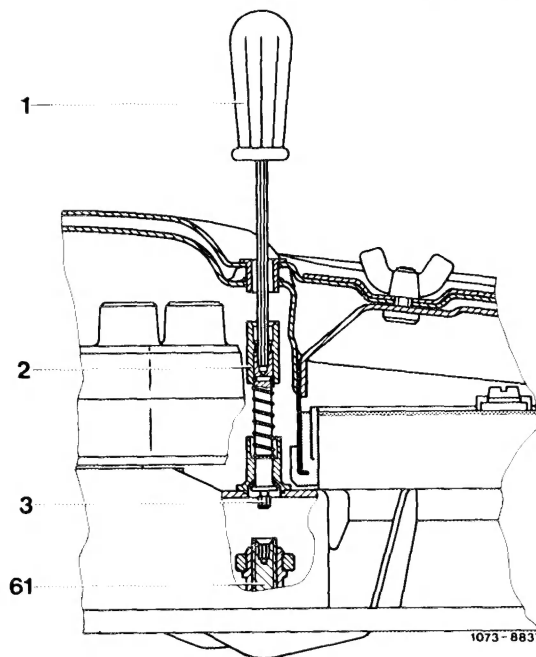
- Check on-off ratio on tester. A value between 40 and 60 is the correct on-off ratio. If necessary adjust value with idle mixture adjusting screw. In order to do this, insert Allen wrench (1) into opening of air filter cover and engage adjusting fixture (2). Push Allen wrench downward against spring force of adjusting fixture while turning slightly until hexagon end (3) engages the mixture adjusting screw (61).

Turn counterclockwise = on-off ratio
in direction 60%
(lean mixture)

Turn clockwise = on-off ratio
in direction 40%
(rich mixture)

- Release Allen wrench. The force of the compression spring will disengage the adjusting fixture from the mixture adjusting screw.

- Accelerate briefly. Recheck on-off ratio and idle speed. Adjust if necessary.



1 Allen wrench 3 Hexagon end
2 Adjusting fixture 61 Mixture adjusting screw

Check and adjust on-off ratio with voltmeter

- Disconnect plug of oxygen sensor (arrow).
- Note indicated value on voltmeter dial. Voltmeter needle must not fluctuate (reading = 50/50).
- Mark indicated value on voltmeter dial with felt tip marker or adhesive tape.
- Reconnect plug of oxygen sensor.
- Read on-off ratio on voltmeter and turn mixture adjusting screw until needle of voltmeter fluctuates around the marking on the voltmeter dial.
- Accelerate briefly. Recheck on-off ratio and idle speed. Adjust if necessary.

